

On page 21, fourth paragraph (EXAMPLE 5), starting on line 29 and ending on page 22, line 4, please replace the paragraph with the following:

D2
--Phagemid DNA from positive λ ZAP II™ phage clones was isolated by excision *in vivo* of the pBluescript™ phagemid under the conditions recommended by Stratagene (CA, USA). Plasmid DNA was either extracted by the method of Birnboim and Doly and the cDNA inserts sequenced by the chain termination method (21), or by the PEG-precipitation method and cycle-sequenced by the dye-terminator method, as recommended by the manufacturer (Applied Biosystems).--.

On page 22, second paragraph (EXAMPLE 6), starting on line 9 and ending on line 14, please replace the paragraph with the following:

D3
--Antisera to *L. intracellularis* bacteria were raised in rabbits and pigs. Rabbits were injected intramuscularly with a preparation of Percoll™ gradient-purified *L. intracellularis* bacteria mixed with a double-emulsion made by processing with oil adjuvant (Freund's incomplete adjuvant, CSL Limited, Melbourne, Australia), and then with Tween 80™ enhancer. Two 3 ml injections, containing 9 mg protein, were given four weeks apart. Blood samples were collected from the marginal ear vein prior to immunisation and two weeks following the second injection.--.

On page 22, third paragraph (EXAMPLE 6), starting on line 16 and ending on line 21, please replace the paragraph with the following:

D4
--A 6-week old pig (395) was hyperimmunised by intramuscular injection of Percoll™ gradient purified *L. intracellularis* bacteria prepared with Freund's incomplete adjuvant as for the rabbit. Three injections of the prepared antigen were administered four weeks apart, and blood was collected from the jugular vein two weeks following the final injection. Diluted pig sera (1 ml, 1 in 200) were pre-adsorbed with 100 μ l *E. coli* DH5 α (24) lysate for 1 h at room temperature with gentle mixing. The lysate was prepared by freeze-thawing a suspension of *E. coli* in PBS.--.

On page 23, first paragraph (EXAMPLE 8), starting on line 4 and ending on line 11, please replace the paragraph with the following:

D5
--Proteins were electrophoretically transferred to Immobilon-P™ (Millipore Corporation, MA, USA) membranes in a Trans-Blot Cell™ (BioRad, CA, USA) at 100 V for 1 h in a buffer

AS cont
containing CAPS (3-[Cyclohexylamino]-1-propanesulfonic acid, pH 11, Sigma, MI, USA) and 10% v/v methanol. The membranes were then blocked with 5% w/v Blotto™ (Diploma skim milk powder, Melbourne, Australia) in PBS for 30 min at room temperature with gentle rocking. The filters were then transferred to antisera diluted in 5% w/v Blotto™, PBS. Pre-adsorbed pig antisera was diluted 1 in 200. The filters were incubated in pig antisera for 1 h followed by washing three times in PBST.--.

On page 23, first paragraph (EXAMPLE 8), starting on line 13 and ending on line 17, please replace the paragraph with the following:

D6
--HRP conjugated anti-swine immunoglobulins (DAKO, CA, USA) were applied at a dilution of 1:2000. Enhanced Chemiluminescence™ (ECL, Amersham, IL, USA) was used to discriminate *L. intracellularis* proteins. Prior to ECL™ detection, blots were washed three times for 7 minutes each. The filters were exposed to autoradiographic film (Agfa, NJ, USA) for less than 1 minute before developing.--.

On page 24, second paragraph (EXAMPLE 11), starting on line 23 and ending on line 27, please replace the paragraph with the following:

D7
--The percoll™ gradient purified bacterial *L. intracellularis* pellet was resuspended in 1 ml of 1% formalin in saline and incubated overnight at 4°C. The percoll™ gradient-purified *L. intracellularis* bacteria was then mixed into a double-emulsion made by processing with oil adjuvant (Freund's incomplete adjuvant, Commonwealth Serum Laboratories, Melbourne, Australia), and then with Tween 80™ enhancer.--.

On page 29, first paragraph (EXAMPLE 18), starting on line 20 and ending on line 27, please replace the paragraph with the following:

D8
--*L. intracellularis* genomic DNA was purified as described in Example 3. The DNA was partially digested with the restriction endonuclease *Sau3A* (Promega) and ligated into Lambda ZAP II Express™ (Stratagene). The lambda library was plated on a lawn of *E. coli* XLI-Blue™ cells at a density of 10,000 pfu per 150 Mm L-broth agar plate. The library was screened, as described in Example 4, with sera from Y12. The pig Y12 was immunised with formalin killed *L. intracellularis*, as described in Example 11 & 12. Vaccinated pigs produced antibodies to a range of *L. intracellularis* proteins, as described in Example 14. A number of phage clones expressing *L. intracellularis* proteins were identified.--.